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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,114	10/17/2003	Cheng-Fang Hsiao	1496-939	7223

7590 06/14/2005

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EXAMINER

NGUYEN, TRAN N

ART UNIT PAPER NUMBER

2834

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No. 10/687,114	Applicant(s) HSIAO, CHENG-FANG	
	Examiner Tran N. Nguyen	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brown et al** (US 4,553,075) in view of **Suzuki et al** (US PgPub 2002/0050747 A1).

Brown discloses cooling fan structure (figs 1-2) comprising:

a base (31, 33) having an interior opening of a circular configuration;

a rotor (11)

a stator (12) mounted in said base; wherein the ring stator having a receiving space thereof for accommodating the rotor;

a plurality of blades (17) mounted pivotally in a receiving space of said ring stator;

a connection ring (16) circumventing the blades; and

a magnet ring (14) of rotor (11) fastened to a side of said connection ring (16) opposite said plurality of blades (17), said magnetic ring rotor means for being induced by stator coil to drive said plurality of blades in rotation.

Art Unit: 2834

Brown specifically discloses the stator comprising a stator housing (31) with three strut members (33) connect to and radiate outwardly from the center of stator housing (31). Mounting bosses 35 (FIG. 1) define holes 36 about the periphery of the housing, enabling the entire motor and fan to be mounted by. The right end of the shaft (22) is securely mounted in a mounting bushing (29), which is itself securely received in a mounting bore (30) of a stator housing (31). Brown discloses that the particular structural stator, i.e., the stator with designed housing ring, supports an axle fixedly positioned centrally therein while enabling to locate the rotor assembly and fan blades rotatably within the stator housing structure.

Brown substantially discloses the claimed invention, *except for the limitations of a ring stator that has an annular periphery with a coil wrapped around entirely therearound, and a series of polar claws being located along an inner side of said ring stator opposite said coil; furthermore, wherein the stator ring having a series of two or more sets of polar claws and an upper coil set and a lower coil set, so as to arrange two sets of ring stator in an alternate manner, the claw poles are insulated by plastic material that integrally formed as a ring seat for locating each coil.*

Suzuki, as shown in fig 2, teaches a permanent magnet motor constructed mainly by a stator unit (18) configured as an annular ring having inner space to accommodate the magnet rotor ring (19) therein. The stator unit (18) includes a pair of stator sub-assembly rings (5, 5). Each stator sub-assembly ring (5) comprises stator yokes (9 and 10) and a ring coil (8) ring stator having an annular periphery with a coil wrapped around entirely therearound. The stator yokes (9 and 10) are made of a steel plate of a soft magnetic material, have a plurality of respective pole teeth (13a and 13b) that are orthogonally bent, and are coupled to each other to form a doughnut shape with the plurality of pole teeth at its inner circumference for accommodating the magnet rotor ring therein. Two stator sub-assembly rings (5, 5) are attached to each other in a back-to-back manner and integrally molded by resin. Suzuki teaches that such an outer stator configuration being incorporated with an inner magnet ring rotor positioned within the hollow space of the outer stator would minimize vibration by reducing cogging resulting in optimum performance of the motor.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the fan motor with the stator structure, as taught by Suzuki. Doing so would enable the fan motor to obtain optimum performance.

Furthermore, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). *In this case, Suzuki teaches an claw-pole outer stator with ring-shaped configuration that having hollow inner space for accommodating a continuous ring shaped permanent magnet rotor for reducing vibration, cogging and improve torque to optimize the performance of the motor. Those skilled in the art would understand that the Brown's motor structure also having an outer stator and an inner continuous magnet rotor ring. Thus, the art is analogous and it would have been obvious to one skilled in the art to modify the Brown's motor by constructing the motor with the Suzuki's teaching of a claw-pole stator-ring structure having stator poles and stator coil continuously surrounding the magnet ring rotor not only to reduce cogging and vibration but to optimize the magnetic flux interaction therebetween the rotor and the stator for enhanced performance of the motor; and*

That the expression "integral" in the present context has a somewhat broader connotation than appellant argues and *is not necessarily restricted to a one-piece article* is clear from the definition of that term as discussed in *Henderson v. Grable*, 52 CCPA 920, 339 F.2d 465, 144 USPQ 91, and *In re Larson*, 52 CCPA 930, 340 F.2d 965, 144 USPQ 347. *In re Kohno*, 157 USPQ 275, 277 n4. (CCPA 1968) (emphasis added). Rather it is our opinion that the circumstances here require that the *unambiguous term "integral" be given the broadest construction the language will reasonably bear without resort to the specification from which it originated*, 6 *In re Kelley*, 49 CCPA 1359, 1363, 305 F.2d 909, 913, 134 USPQ 397, 397; *Cusano v. Decepoli*, 41 CCPA 968, 970, 214 F. 2d 134, 135, 102 USPQ 251, 25 1; *Wirkler v. Perkb'ns et al.*, 44 CCPA 1005, 245 F.2d 502, 114 USPQ 284.

Regarding the Suzuki's motor is not specifically taught to be used in a fan as motor fan, the intended use of the claimed invention must result in a structural difference between the

Art Unit: 2834

claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, *in this case a motor provide rotation torque which can be employed in a fan for the function of rotating the fan's blades*, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Double Patenting

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and © may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2834

Claims 1-4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claims 9-11 of copending U.S. patent application 10/687141 (hereafter US Appl'141)** in view of level of ordinary skill of a worker in the art. This is provisional double patenting rejection since the copending application has not been allowed and/or no patent has been issued.

Claims 9-11 of US Appl'141 are similar to claims 1-4 of this application. Both applications claim the following substantially the same subject matters:

A cooling fan structure comprising:

a base;

a ring stator mounted in said interior opening of said base (Appl'141), *i.e., the center of the base, as recited in the present invention*, said ring stator having at least two series of polar claws formed on an inner wall thereof; a plurality of blades rotatably mounted on said axle and mounted in said interior opening of said base and in an interior of said ring stator; wherein

the pole claws being insulated from each other by a polymeric material (Appl'141), *i.e., a plastic material, as recited in claim 1 of the present application*

a plurality of blades rotatably mounted on said axle and mounted in said interior opening of said base and in an interior of said ring stator, *i.e., the rotor seat*;

a magnetic ring rotor means fastened to a side of said connection ring opposite said plurality of blades, *i.e., mounted on an axis in a receiving space of the ring stator*, said magnetic ring rotor means for being induced by said coil of said ring stator so as to drive said plurality of blades; wherein:

the coil and the ring stator claw poles comprising upper coil set and a lower coil set;

polar claws being insulated from each other by a polymeric material.

The only differences are as the following recitation in the claimed invention is that the claws of the stator ring are said to be comprised integrally of an insulation plastic material as a ring seat for locating each coil, while the Appl'141 recited the claw just being insulated from each other by a polymeric material, which is a type of plastic material.

Those skilled in the art would understand that obviously, based on the structure of the stator, the insulating material when being molded to securely insulating the pole claws the material is integrally formed thereof as a ring seat.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the fan motor with the stator structure so that the stator seat is formed as integrally of an insulating plastic thereof. Doing so would ensure the electrically insulating therebetween stator claws and enhance mechanical support for the stator pole segment. In addition, That the expression "integral" in the present context has a somewhat broader connotation than appellant argues and *is not necessarily restricted to a one-piece article* is clear from the definition of that term as discussed in *Henderson v. Grable*, 52 CCPA 920, 339 F.2d 465, 144 USPQ 91, and *In re Larson*, 52 CCPA 930, 340 F.2d 965, 144 USPQ 347. *In re Kohno*, 157 USPQ 275, 277 n4. (CCPA 1968) (emphasis added). Rather it is our opinion that the circumstances here require that the *unambiguous term "integral" be given the broadest construction the language will reasonably bear without resort to the specification from which it originated*, 6 *In re Kelley*, 49 CCPA 1359, 1363, 305 F.2d 909, 913, 134 USPQ 397, 397; *Cusano v. Decepoli*, 41 CCPA 968, 970, 214 F. 2d 134, 135, 102 USPQ 251, 25 1; *Wirkler v. Perkb'ns et al.*, 44 CCPA 1005, 245 F.2d 502, 114 USPQ 284.

Furthermore, polymeric material is a type of plastic, it would have been obvious to one skilled in the art at the time the invention was made to modify the fan motor by selecting specifically plastic for the integrally formed insulating plastic ring seat. Doing so would provide a well known and suitable insulating material for the stator because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

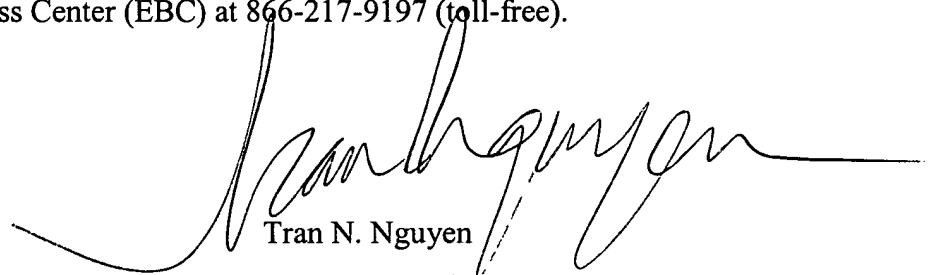
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

Art Unit: 2834

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tran N. Nguyen', is written over the printed name and title.

Tran N. Nguyen
Primary Examiner
Art Unit 2834